

"SAFE YIELD" DEFINITIONS FROM SELECTED STATES

State / Citation	Definition
Arizona A.R.S. § 45-561 (2007)	A groundwater management goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area.
Arkansas 138 00 CARR 004 (2007)	The amount of water that can be withdrawn from an aquifer on a continuing basis without causing serious depletion effects.
California Cal Uncod Water Deer, Act 2750 § 331 (2007)	The condition of a groundwater basin when the total average annual groundwater extractions are equal to, or less than, the total average annual groundwater recharge, either naturally or artificially.
Connecticut Conn. Gen. Stat. § 25-33k (2007)	The maximum dependable quantity of water per unit of time that may flow or be pumped continuously from a source of supply during a critical dry period without consideration of available water limitations.
Illinois 35 Ill. Adm. Code 671.102 (2007)	The rate (in gallons pumped per minute per foot of drawdown) at which water can be withdrawn from an aquifer without depleting the supply.
Kansas K.A.R. § 5-1-1 (2007) K.A.R. § 5-21-4 (2007) Western Kansas Groundwater Management District No. 1 K.A.R. § 5-22-1 (2007) Equus Beds Groundwater Management District No. 2 K.A.R. § 5-22-7 (2007) Equus Beds Groundwater Management District No. 2	<p>The long-term sustainable yield of the source of supply, including hydraulically connected surface water or groundwater.</p> <p>Calculated using the following formula: $Q = AR/12$ Q = the allowable annual safe yield amount in acre-feet per year A = area of consideration, within a two-mile-radius circle, approximately 8,042 acres R = average annual recharge of 0.5 inches per year</p> <p>The total quantity of ground-water meeting the following conditions: (1) Can be artificially withdrawn from an aquifer; and (2) naturally discharges to a stream without exceeding the aquifer recharge value for the area of consideration and without impairing the water rights diverting from the aquifer.</p> <p>Calculated using the formula $S = A \times K$ where: (A) S is the allowable safe-yield amount in acre-feet per year; (B) A is the area of consideration; and (C) K is an aquifer recharge value in feet. Everywhere in the district, except in McPherson county, K is equal to 0.5 feet per year. In McPherson county, K is a constant equaling 0.25 feet per year. K is calculated by multiplying the recharge percentage, which is 10 percent in McPherson county and 20 percent for the rest of the district, times the average annual precipitation of 2.5 feet per year.</p>
Maine CMR 06-096-378 (2007)	The amount of water which can be withdrawn from a well without producing adverse effects on the quality or quantity of water available to that well, protected natural resources, or other users of groundwater.

<p>Massachusetts ALM GL ch. 21G, § 2 (2007)</p> <p>ALM Spec L ch. S67, § 2 (2007)</p> <p>310 CMR 36.31 (2007) Massachusetts Water Resources Management Program</p>	<p>The maximum dependable withdrawals that can be made continuously from a water source including ground or surface water during a period of years in which the probable driest period or period of greatest water deficiency is likely to occur; provided, however, that such dependability is relative and is a function of storage and drought probability.</p> <p>That amount of water that can be safely withdrawn from a water supply source without impairing the ability of such source to supply said amount of water on an average annual basis, as determined by the division of watershed management and commented on by the division of environmental protection within the department of the attorney general.</p> <p>The Department may consider at least the following: (a) the natural variability of streamflow and aquatic habitat protection; (b) the water balance of the water source; (c) the hydrologic impacts of proposed, existing and permitted withdrawals; (d) the safe yield of any isolated or severely impacted subbasin within the water source; (e) any information or guidelines developed by the Department of Conservation and Recreation or the Water Resources Commission; and (f) any other or additional information deemed applicable or relevant by the Department</p>
<p>Minnesota Minn. R. 6115.0630 (2007)</p>	<p>The amount of groundwater that can be withdrawn from an aquifer system without degrading the quality of water in the aquifer and without allowing the long term average withdrawal to exceed the available long term average recharge to the aquifer system based on representative climatic conditions.</p>
<p>New Jersey N.J. Stat. § 58:1A-3 (2007)</p>	<p>That maintainable yield of water from a surface or ground water source or sources which is available continuously during projected future conditions, including a repetition of the most severe drought of record, without creating undesirable effects, as determined by the department.</p>
<p>Pennsylvania 27 Pa.C.S. § 3102 (2007)</p>	<p>The amount of water that can be withdrawn from a water resource over a period of time without impairing the long-term utility of a water resource such as dewatering of an aquifer, impairing the long-term water quality of a water resource, inducing a health threat, or causing irreparable or unmitigated impact upon reasonable and beneficial uses of the water resource. Safe yield of a particular water source is primarily to be determined based upon the predictable rate of natural and artificial replenishment of the water source over a reasonable period of time.</p>
<p>Rhode Island R.I. Gen. Laws § 46-15.7-2 (2007)</p> <p>CRIR 96-110-006 (2007)</p>	<p>A sustainable withdrawal that can be continuously supplied from a water source without adverse effects throughout a critical dry period with a one percent (1%) chance of occurrence, or one that is equivalent to the drought of record, whichever is worse.</p> <p>The rate at which groundwater can be withdrawn without producing unacceptable or undesirable effects such as drawdowns or changes in water quality.</p>
<p>Utah Utah Code Ann. § 73-5-15 (2007)</p>	<p>The amount of groundwater that can be withdrawn from a groundwater basin over a period of time without exceeding the long-term recharge of the basin or unreasonably affecting the basin's physical and chemical integrity.</p>

